ABSTRACT OF THE DISCLOSURE

An exhaust gas purifying system for an automotive internal combustion engine comprises a NOx treating catalyst for reducing NOx disposed in an exhaust gas passageway of a combustion device, to reduce NOx in presence of reducing components in exhaust gas. Additionally, a hydrogen enriching device is disposed upstream of the NOx treating catalyst with respect to flow of exhaust gas from the combustion device and arranged to increase a ratio of hydrogen to total reducing components in at least one of combustion gas and exhaust gas so as to meet relations represented by following formulae (1) and (2), when reduction of NOx is carried out by the NOx treating catalyst:

$$[H2 / TR]d > [H2 / TR]u \quad ...(1)$$

$$[H2 / TR]d \geq 0.3 \quad ...(2)$$

where [H2 / TR]u is a ratio between a concentration [H2]u of hydrogen and a concentration [TR]u of total reducing components in at least one of exhaust gas in the exhaust gas passageway upstream of the hydrogen enriching device and combustion gas in a state before undergoing the hydrogen ratio increasing by the hydrogen enriching means; and [H2 / TR]d is a ratio between a concentration [H2]d of hydrogen and a concentration [TR]d of total reducing components in exhaust gas in the exhaust gas passageway upstream of the NOx treating catalyst and downstream of the hydrogen enriching device.